Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

PUBLIC HEALTH REPORTS

VOL. 31 DECEMBER 15, 1916. No. 50

SEWAGE—POLLUTION OF STREAMS.

DAMAGES AWARDED AGAINST A CITY BECAUSE OF POLLUTION OF A STREAM BY SEWAGE.

Suit was brought against the city of Princeton, Ky., for damages caused by the pollution of a creek by the city sewage. The court was also asked to issue an injunction prohibiting the city from discharging sewage into the creek. The circuit court granted the injunction and awarded $2,500 damages against the city.

The Court of Appeals of Kentucky affirmed the judgment for damages, but the injunction was dismissed, as the court found from the evidence that it was possible to discharge the sewage into the stream in such a way as not seriously to injure owners of property below the sewer outlet.

The opinion appears in this issue of the Public Health Reports, page 3431.

ANTHRAX.

REPORT OF AN OUTBREAK AMONG TANNERY WORKERS, MASSACHUSETTS, 1916.

By WALTER H. BROWN, Epidemiologist, Massachusetts State Department of Health.

The unusual incidence of anthrax reported to this department began in the early part of March, 1916, and called for special investigation. The reports came principally from the towns of Winchester and Woburn. A study of these reports revealed the fact that practically all of the cases were occurring in tannery workers. Closer investigation showed that these individuals were handlers of dried hides. The completed investigation of this subject has demonstrated the potential danger of dried, imported hides.

Prevalence in Former Years.

During the period from 1865 to 1906 the registration reports of Massachusetts record 128 deaths from anthrax. The detailed records of most of these cases can not be obtained.

Anthrax was made a reportable disease in Massachusetts in August, 1907. Since that time 64 cases have been reported, with 20 deaths. The State records furnish the following data:

Years.	Cases.	Deaths.	Fatality.	Years.	Cases.	Deaths.	Fatality.
			Per cent.				*Per ct.*
1865-1906	....	128	....	1912	11	2	18.2
1907	1	4	....	1913	8	3	37.5
1908	5	2	40.0	1914	8	1	12.5
1909	7	1	14.3	1915	11	3	27.3
1910	7	2	28.6				
1911	6	2	33.3	Total	64	20	31.3

The indicated fatality rate is considerably above the average experiences, both in England and Germany. The detailed data on these cases has not been recorded. They were distributed in cities and towns as follows: Lynn, 17; Boston, 12; Peabody, 6; Haverhill, 6; Woburn, 3; Norwood, 3; Methuen, 3; Worcester, 2; Dedham, 1; Chelsea, 1; Brockton, 1; Fall River, 1; Springfield, 1; Wakefield, 1; Winchester, 1; Cambridge, 2; Sheffield, 1; Salem, 1; and Revere, 1.

A Disease of Animals.

Anthrax is essentially a disease of animals. It is known under a variety of titles, some of which are woolsorters' disease (pulmonary form), malignant pustule (external form), charbon and milzbrand. It is found in practically every country in the world. At the present time cattle and sheep are the chief sufferers. Herbivorous animals are particularly susceptible. There have been numerous epizootics among animals causing enormous economic losses.

Anthrax in man is derived from some domestic animal or commercial animal product, especially hides, hair or wool. The bacillus does not penetrate the unbroken skin, but enters some abrasion, scratch or cut. It occurs particularly among veterinarians, brush makers, leather workers, tanners, and farmers. The comparative danger from the various materials is illustrated by the English statistics from 1899 to 1907, during which time 447 cases, with 120 deaths, from all forms of anthrax were reported.

Workers in—	Cases.	Deaths.	Fatality.	Workers in—	Cases.	Deaths.	Fatality.
			Per cent.				*Per cent.*
Worsted and wool	175	47	26.9	Other industries	37	13	35.1
Horsehair and bristles	104	26	25.0				
Hides and skins	131	34	25.9	Total	447	120	26.8

Gastrointestinal anthrax may result from the eating of flesh of animals infected with the disease.

Description of the 1916 Outbreak.

During the period from February 17, 1916, to June 27, 1916, there were 25 cases of human anthrax reported to the State department of health. This was the severest outbreak of this disease ever recorded in Massachusetts. A clinical and epidemiological study of these cases has revealed some interesting facts as to the possible sources and modes of infection, and methods of prevention and treatment of this disease.

While 23 of the 25 reported cases were in persons handling hides, the most interesting group consists of 20 cases which were infected from a common source. An analysis of the early reports showed that the infection was confined to the workers in three tanneries located in the towns of Winchester and Woburn. Further study revealed the fact that every one of the persons infected had been handling dried "China" hides.

From this cargo of hides each one of the tanneries involved received a considerable shipment. Further, the shipping receipts for the hides showed that they arrived at the tanneries before the first case of anthrax occurred.

The next step was to demonstrate the exposure of the infected men to these hides. A comparison of the time when the hides were in the process of being tanned with the working time of the infected men furnished the test. Every one of the men handled the hides bearing the characteristic trade mark. This completed the picture. The fact of hides coming from infected territory, shipped to the tanneries involved, handled by men who came down with anthrax, with no cases in other tanneries, is assumed to be sufficient evidence upon which to convict this shipment of hides of being the cause of this particular outbreak of anthrax.

Clinical Histories.

The interesting clinical features of this group of cases may be conveniently condensed into the following table:

No.	Date (1916).	City or town.	Occupation.	Location of lesions.	Treatment.	Result.
1	Feb. 17	Worcester	Woolsorter	Left side of neck	Serum (commercial).	Recovery.
2	Feb. 23	Peabody	Truckman	Right temple	Excision. Bichlorid dressing.	Do.
3	Mar. 2	Winchester	Tannery worker (beam house).	Left side of neck	Excision	Death.
4	Mar. 9	Woburn	do	Forehead	Antiseptic compresses.	Recovery.
5	Mar. 13	do	do	do	Cauterized. Moist bichlorid dressing.	Do.
6	Mar. 14	Chelsea	Dock laborer	Left side of neck	Bichlorid dressing	Death.
7	do	Winchester	Tannery worker (beam house).	Right side of neck and right thigh.	Excision under ether.	Recovery.
8	Mar. 16	Woburn	do	Left side of neck	Antiseptic compresses. Bichlorid dressing.	Do.

No.	Date (1916).	City or town.	Occupation.	Location of lesions.	Treatment.	Results.
9	Mar. 18	Winchester	Tannery worker (beam house).	Right forearm	Compress, 70 per cent alcohol.	Recovery.
10	Mar. 21	Woburn	do	Left cheek	Boric dressing	Do.
11	do	Winchester	Tannery worker (hide splitter).	Left side of neck	Bichlorid dressing	Do.
12	do	do	Tannery worker (die stamper).	do	do	Do.
13	Mar. 27	Somerville	Hide weigher	do	Excision. Bichlorid dressing.	Do.
14	Apr. 10	Woburn	Teamster	do	Antiseptic bichlorid dressing.	Do.
15	Apr. 11	Winchester	Tannery worker (beam house).	Right side of neck.	Bichlorid dressing	Do.
16	Apr. 20	Boston	Teamster	do	Excision	Death.
17	do	Clinton	Farm hand	Left hand[1]	Carbolic dressing	Recovery.
18	May 1	Woburn	Tannery worker (beam house).	Left side of cheek	Bichlorid dressing	Do.
19	do	do	Tanner	Left cheek	do	Do.
20	May 2	do	Tannery worker (beam house).	Left ear	do	Do.
21	June 3	do	Tannery worker (flesher).	Right side of neck.	Corrosive dressing	Death.
22	June 4	Winchester	Tannery worker (beam house).	Left side of neck	Corrosive dressing. Serum 45 c. c. and 20 c. c.	Recovery.
23	June 16	Norwood	do	Right arm	Refused treatment	Recovery as far as known.
24	June 23	Woburn	Tannery worker	Left side of neck	Antiseptic dressing	Recovery.
25	June 27	do	Tannery worker (beam house).	Right groin	Dry, sterile dressing.	Do.

[1] Abrasion of hand received while helping to bury a cow dead from anthrax.

PARINAUD'S CONJUNCTIVITIS.

ITS IMPORTANCE TO THE HEALTH OFFICER.

By G. L. Collins, Surgeon, United States Public Health Service.

There are few health officers to-day who in their examinations of eyes are not keenly on the lookout for cases of trachoma. So much indeed has been written on the subject that, with the exception possibly of follicular conjunctivitis, the health officer is perhaps inclined to the belief that the formation of granulations of adenoid tissue in the tarsal conjunctivæ and retrotarsal folds is almost pathognomic of trachoma.

Several other conditions must, however, not be forgotten or mistakes may be made and possibly embarrassing situations may be brought about by the necessity of retracting diagnoses reached even after careful and extended observation. The writer well remembers, for instance, two cases shown month after month at the eye clinics in Vienna and regularly diagnosed trachoma by the American postgraduate students, many of them oculists of wide experience. One was a case of tuberculosis of the conjunctiva and the other the chronic stage following an attack of acute blennorrhea.

Lastly, the examiner must not be led astray by that rare but interesting form of granular conjunctivitis of comparatively recent discovery, known as Parinaud's conjunctivitis, which may closely